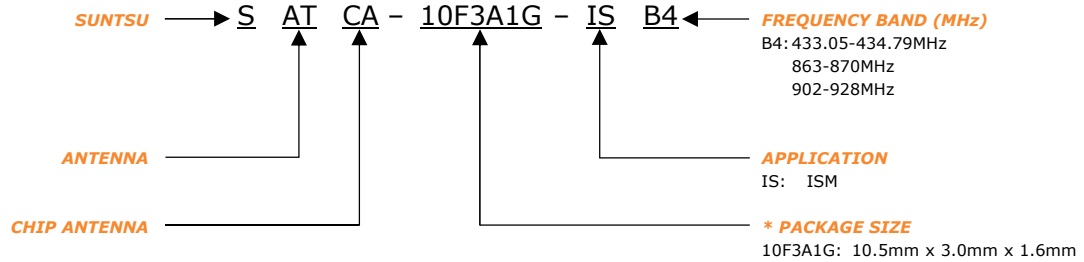


FEATURES	APPLICATIONS
<ul style="list-style-type: none"> - ISM - Chip Type - Stable And Reliable Performance - 433.05-434.79MHz, 863-870MHz & 902-928MHz - SMT Process Compatible 	<ul style="list-style-type: none"> - ISM 433/868/915 Band - Short Range Devices - IOT Applications - Wireless Alarm And Security Systems - Machine To Machine Communication



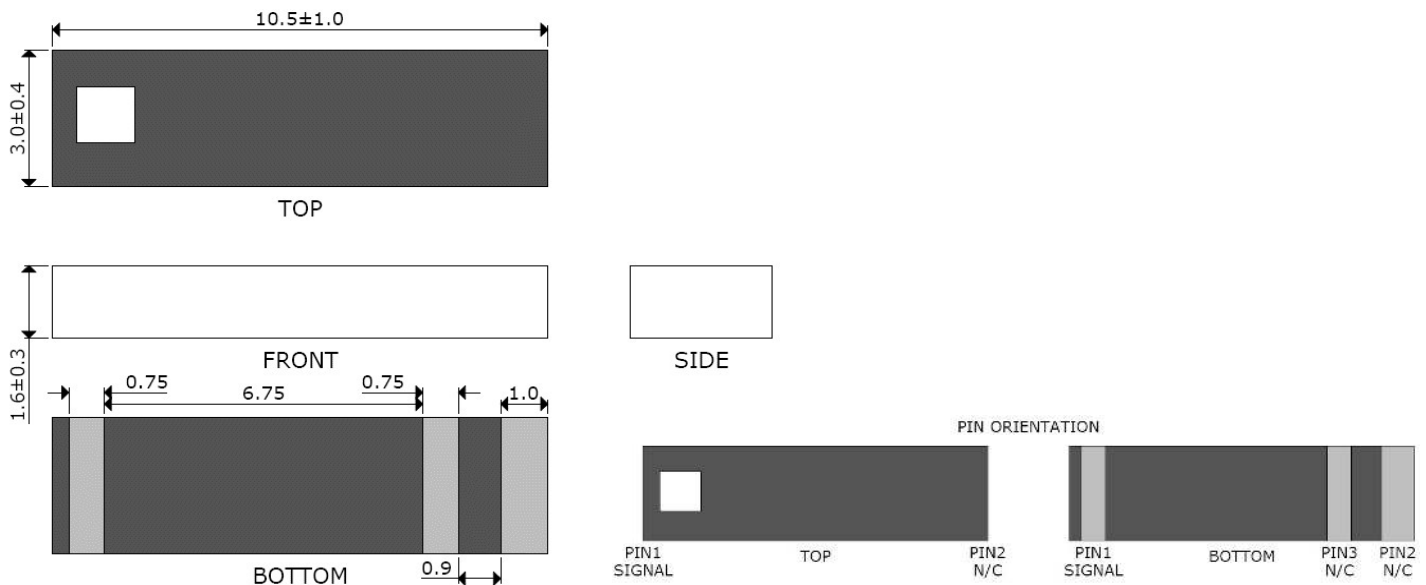
PART NUMBERING GUIDE



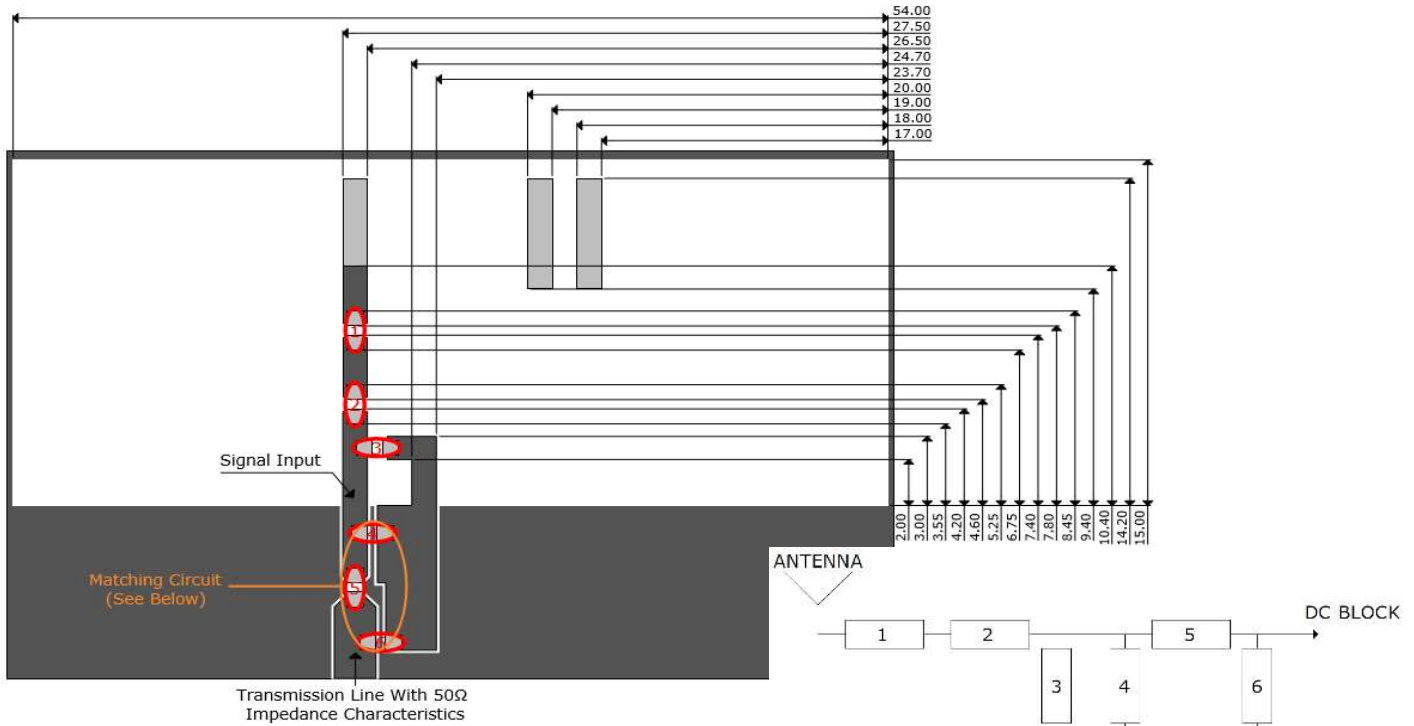
* Where letters denote decimal location A=.0, B=.1, C=.2, etc. Ex: B5=0.15, 3A5=3.05, 9A=9.0
 To customize your parameters, contact a Suntsu representative.

ELECTRICAL PARAMETERS (At 25°C)	UNITS	MIN.	TYP.	MAX	REMARKS
Frequency Band	MHz	433.05		434.79	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		N/A		At 433MHz
Efficiency	%		N/A		At 433MHz
VSWR				2	At Center Frequency
Operating Temperature	°C	-40		85	
Frequency Band	MHz	863		870	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		-2.1		At 868MHz
Efficiency	%		26		At 868MHz
VSWR				2	At Center Frequency
Operating Temperature	°C	-40		85	
Frequency Band	MHz	902		928	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		-1.9		At 915MHz
Efficiency	%		26.3		At 915MHz
VSWR				2	At Center Frequency
Operating Temperature	°C	-40		85	

OUTLINE DRAWING (NOTE: All dimensions are in millimeters [mm], unless otherwise noted. Drawings are not to scale.)



RECOMMENDED LAND PATTERN & FREQUENCY TUNING SCENARIO CIRCUIT (NOTE: All dimensions are in mm, unless otherwise noted. Drawings are not to scale.)



System Matching Circuit Components (433MHz Band)

Location	Description	Vendor	Tolerance
1	150nH, (0402)	MURATA	±5%
2	82nH, (0402)	MURATA	±5%
3	N/A	-	-
4	8.2pF, (0402)	MURATA	±5%
5	39pF, (0402)	MURATA	±5%
6	18pF, (0402)	MURATA	±5%

System Matching Circuit Components (868MHz Band)

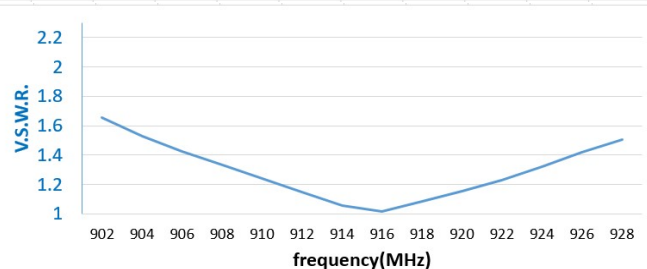
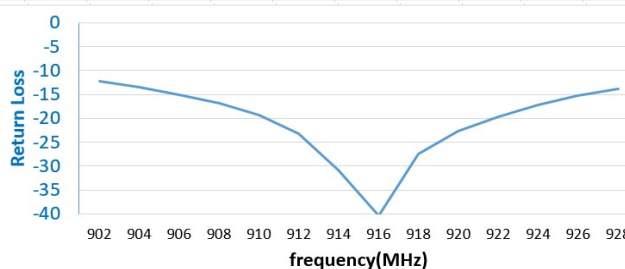
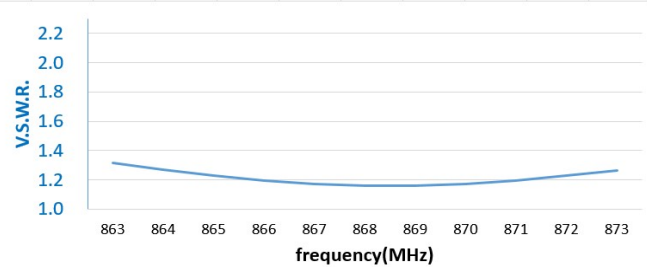
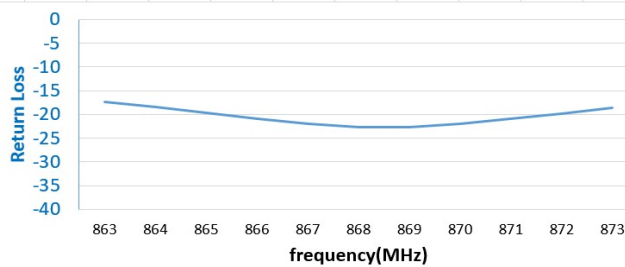
Location	Description	Vendor	Tolerance
1	33nH, (0402)	MURATA	±5%
2	15nH, (0402)	MURATA	±5%
3	N/A	-	-
4	2.2pF, (0402)	MURATA	± 0.05pF
5	0Ω, (0402)	-	-
6	N/A	-	-

System Matching Circuit Components (915MHz Band)

Location	Description	Vendor	Tolerance
1	27nH, (0402)	MURATA	±5%
2	18nH, (0402)	MURATA	±5%
3	N/A	-	-
4	2.2pF, (0402)	MURATA	± 0.05pF
5	0Ω, (0402)	-	-
6	N/A	-	-

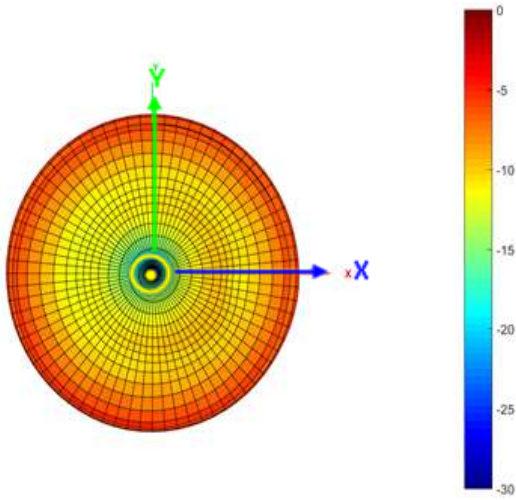
For these suggested values for the matching and tuning of components, the average frequency will be around 433MHz or 868MHz or 915MHz on a standard 86 x 54mm² Evaluation board. Please note, these are average reference values which may need to be changed when different circuit boards or manufactures are used.

ELECTRICAL TEST

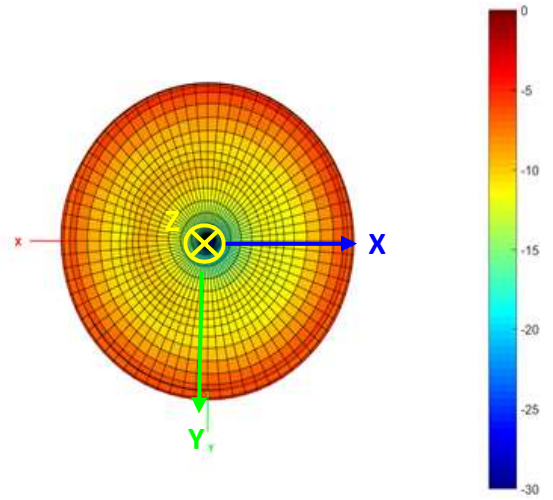


3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

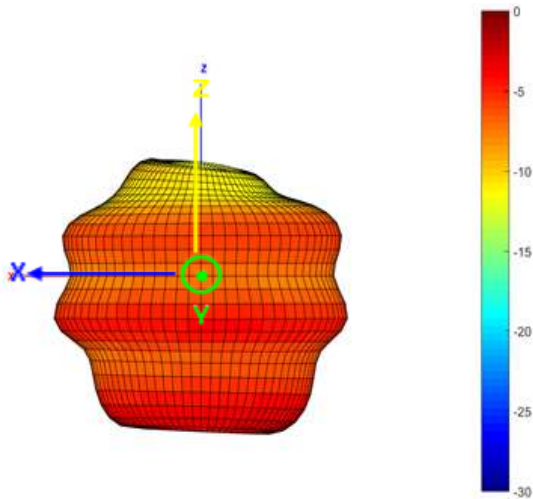
868MHz



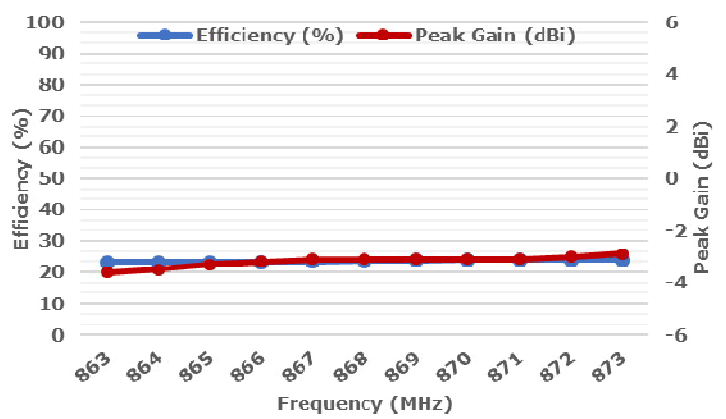
868MHz



868MHz

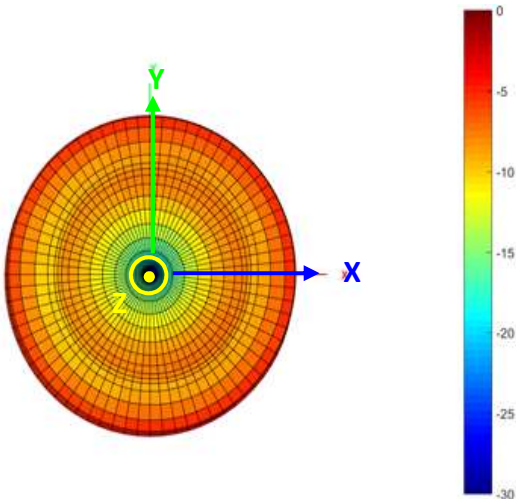


868MHz

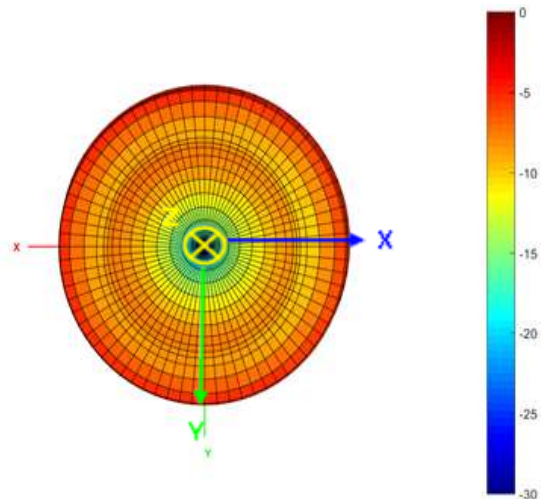


Freq.	863	864	865	866	867	868	869	870	871	872	873
Eff. (%)	23.3	23.3	23.3	23.3	23.4	23.6	23.7	23.9	23.9	23.9	23.9
P.G.	-3.6	-3.5	-3.3	-3.2	-3.1	-3.1	-3.1	-3.1	-3.1	-3.0	-2.9

915MHz

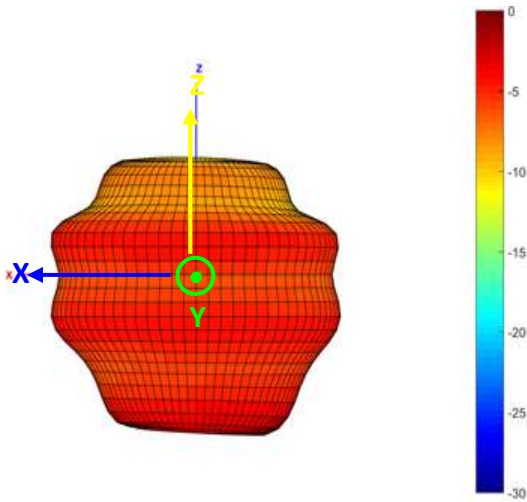


915MHz

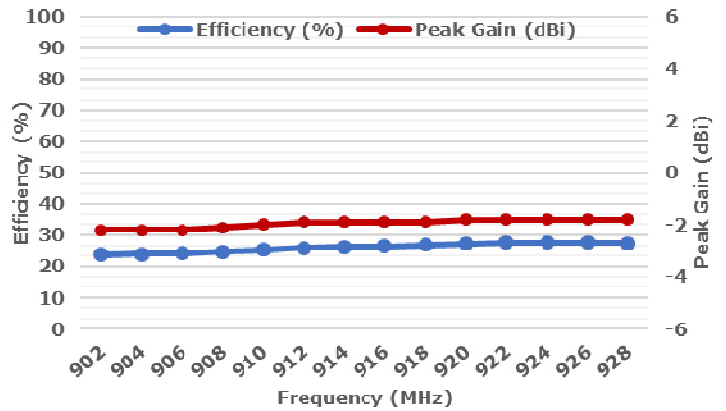


3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY (CONT)

915MHz



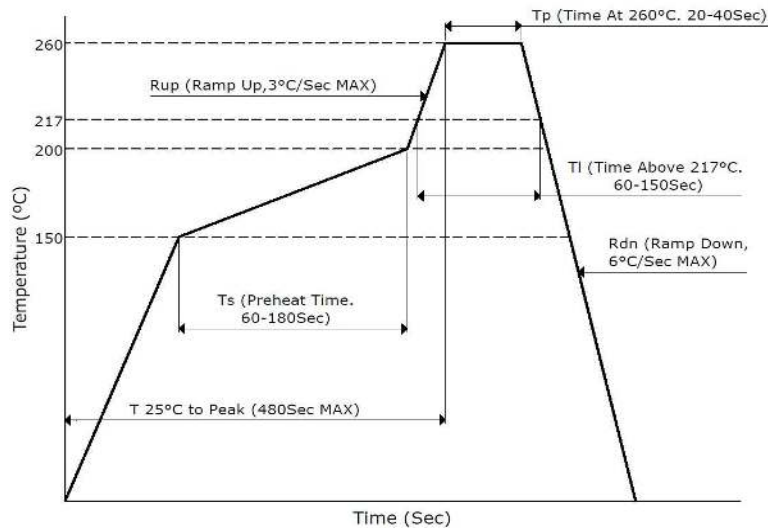
915MHz



Freq.	902	904	906	908	910	912	914	916	918	920	922	924	926	928
Eff. (%)	23.7	23.9	24.2	24.7	25.4	25.9	26.2	26.4	26.8	27.2	27.6	27.7	27.7	27.5
P.G.	-2.2	-2.2	-2.2	-2.1	-2.0	-1.9	-1.9	-1.9	-1.9	-1.8	-1.8	-1.8	-1.8	-1.8

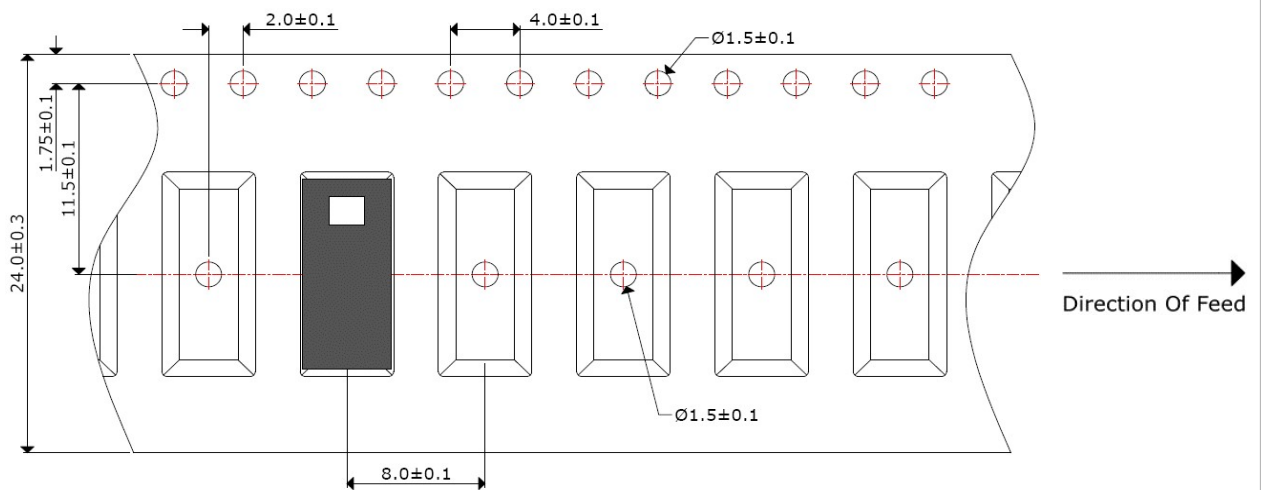
SOLDERING CONDITIONS

Typical Soldering Profile For Lead-Free Process



PACKAGING - TAPE AND REEL (NOTE: All dimensions are in mm, unless otherwise noted. Drawings are not to scale.)

3,000Pcs / Reel



ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

High Temperature Test	85°C for 500 hours, and then to normal temperature/humidity for 24hours.
Low Temperature Test	-30°C for 500 hours, and then to normal temperature/humidity for 24hours.
Humidity Test	85°C / 90-95% for 96 hours, and then to normal temperature/humidity for 24hours.
Thermal Shock Test	-30°C for 30 min and +85°C for 30 min. 5 cycles, then expose to normal temperature/humidity for 24 hours or more.
Vibration Test	5 to 200 to 5Hz, swept in 10min, 4.5G at max(2mm amplitude), in X and Y directions for 2 hours each and in Z direction for 4 hours.